



# Compatibility Test Report of HUAWEI WLAN Solution with Aruba Clearpass



Huawei Technologies Co., Ltd.

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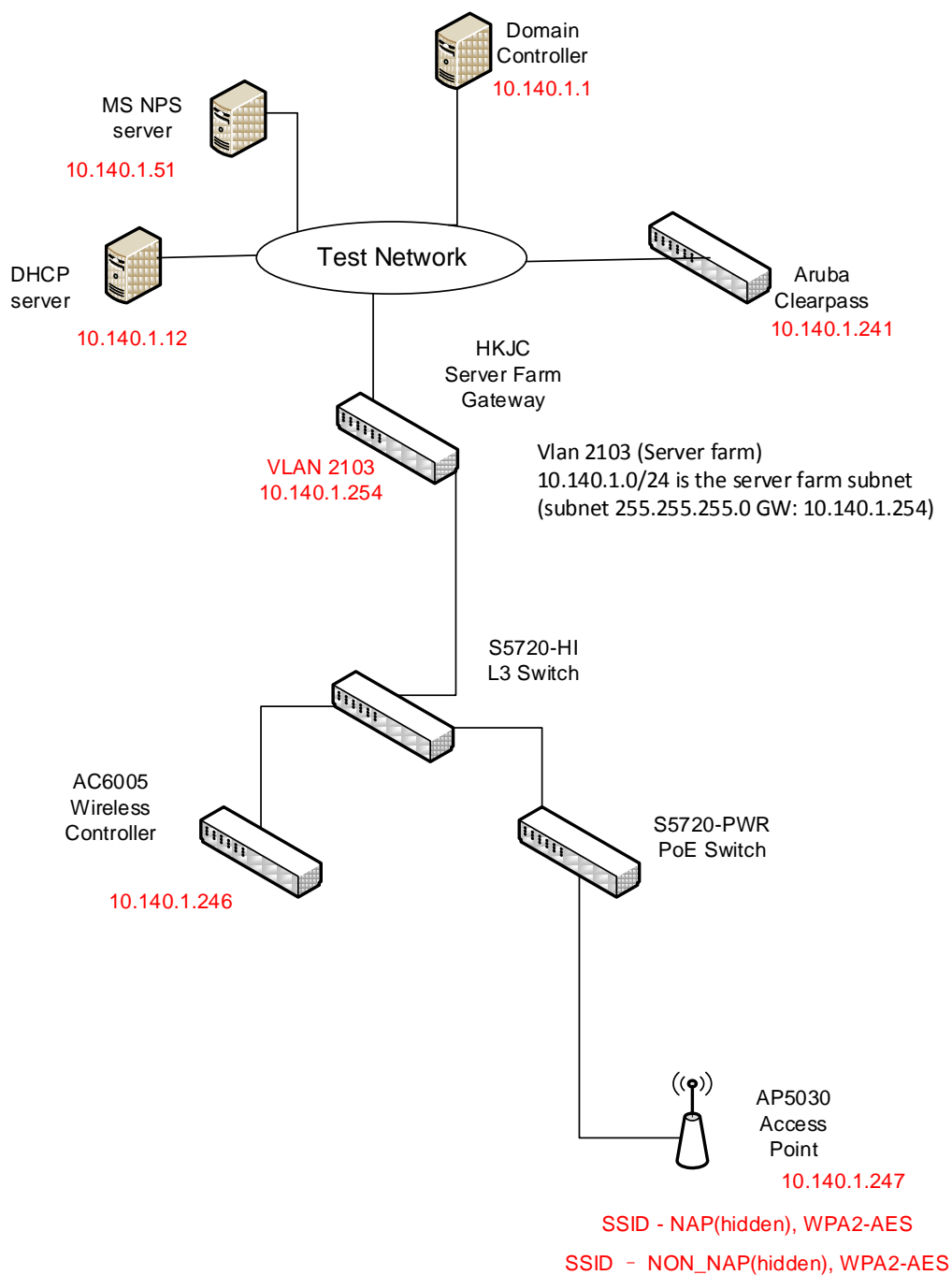
## Background

The Customer is one of the oldest institutions in Hong Kong. It is a non-profit organization providing horse racing, sporting and betting entertainment in Hong Kong. It holds a government-granted monopoly in providing pari-mutuel betting on horse racing, the Mark Six lottery, and fixed odds betting on overseas football events. The organization is the largest taxpayer in Hong Kong, as well as the largest community benefactor. It donated a record HK\$3.6 billion in 2014 to support the different needs of the society and contribute to the betterment of Hong Kong. The Club also proactively identifies, funds and develops projects which anticipate and address social issues and pressing needs in Hong Kong. It also provides dining, social, sport and recreation facilities to its approximately 23,000 members.

## Objective

The POC test is to prove that HUAWEI WLAN device can interwork with Aruba Clearpass NAC server in customer network, including machine authentication, AD account authentication and posture check.

## Network Diagram



### Service VLAN for SSIDs

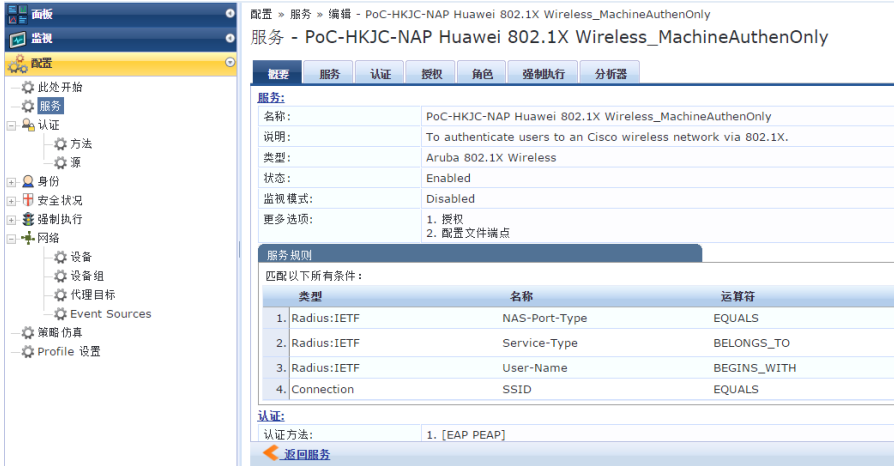
- a) NAP SSID (Normal): Vlan 2102 (IP subnet 10.138.0.0/16)
- b) NAP SSID (Alert): Vlan 2106 (IP subnet 10.128.0.0/16)

## Equipments

Equipment	Name	Version
WLC	AC6005	V200R007C10SPC300
WIFI AP	AP5030	V200R007C10SPC300
NAC	Aruba Clearpass	6.6
Termial	Lenovo Laptop	Win7

## Test Case

### Machine authentication

<b>Test Item</b>	Machine Authentication
<b>Test Objective</b>	Validate that WLAN system supports machine Authentication
<b>Test Setup</b>	<p>Pre-conditions:</p> <ol style="list-style-type: none"> <li>1) All devices work normally</li> <li>2) Establish the test environment according to the above topology</li> <li>3) Adding WLC in clearpass server</li> </ol>
<b>Test Procedure</b>	<ol style="list-style-type: none"> <li>1) Configure AC correctly, AP deliver SSID: "H-NAP", the security policy is WPA2-802.1x;</li> <li>2) Configure Machine authentication service in Clearpass;</li> </ol> 



Test  
Procedure

1) Configure AC correctly, AP deliver SSID: “H-NAP”, the security policy is WPA2-802.1x;

2) Configure dot1x authentication service in Clearpass;

aruba

ClearPass Policy Manager

配置 > 服务 > 编辑 - TestingHuawei 802.1X Wireless

服务 - TestingHuawei 802.1X Wireless

概要

服务

认证

授权

角色

强制执行

分析器

服务:

名称:

TestingHuawei 802.1X Wireless

说明:

To authenticate users to any wireless network via 802.1X.

类型:

802.1X 无线

状态:

Enabled

监视模式:

Disabled

更多选项:

1. 授权

2. 配置文件端点

服务规则

匹配以下所有条件:

类型	名称	运算符
1. Radius:IETF	NAS-Port-Type	EQUALS
2. Radius:IETF	Service-Type	BELONGS_TO
3. Connection	SSID	EQUALS
4. Radius:IETF	NAS-Identifier	EQUALS
5. Radius:IETF	NAS-IP-Address	EQUALS

认证:

返回服务

aruba

ClearPass Policy Manager

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名称:

TestingHuawei 802.1X Wireless

说明:

To authenticate users to any wireless network via 802.1X.

类型:

802.1X 无线

状态:

Enabled

监视模式:

☐ 启用以监视无强制执行的网络访问

更多选项:

☒ 授权
☐ 安全状况遵从
☐ 审计终端主机
☒ 配置文件端点
☐ Accounting Proxy

服务规则


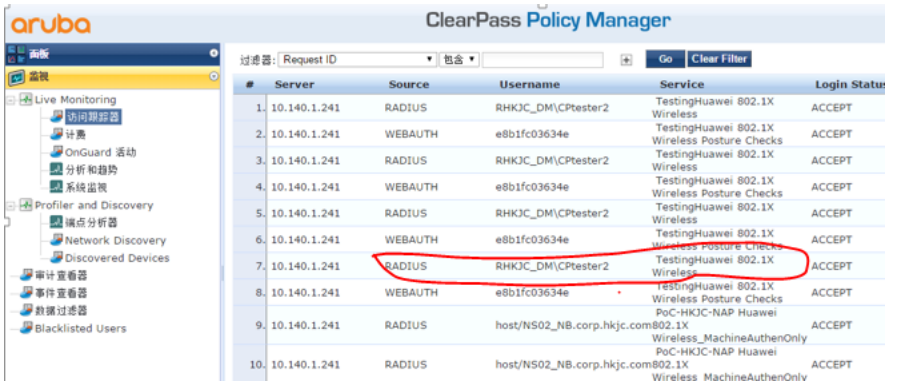
匹配项 ☐ 任意或 ☒ 以下所有条件:

类型	名称	运算符	值
1. Radius:IETF	NAS-Port-Type	EQUALS	Wir
2. Radius:IETF	Service-Type	BELONGS_TO	Log Aut
3. Connection	SSID	EQUALS	H-N
4. Radius:IETF	NAS-Identifier	EQUALS	H-N
5. Radius:IETF	NAS-IP-Address	EQUALS	10.
6. Click to add...			

返回服务

错误！未知的文档属性名称

6

	 <p>3) Using laptop connect H-NAP ssid, input the AD account and password for authentication, check endpoint log in clearpass server, Expected result 1,2.</p>
<p><b>Expected Result</b></p>	 <p>2) Laptop get the ip address of 10.128.0.0/16(VLAN 2102);</p>
<p><b>Remark</b></p>	
<p><b>Signature by Customer</b></p>	<p><b>Signature by Vendor</b></p>

### Posture check

<p><b>Test Item</b></p>	<p>Posture check</p>
<p><b>Test Objective</b></p>	<p>Validate that WLAN system supports Posture check</p>
<p><b>Test Setup</b></p>	<p>Pre-conditions: 1) All devices work normally</p>

	<div>2) Establish the test environment according to the above topology</div> <div>3) Adding WLC in clearpass server</div>																					
<div>Test Procedure</div>	<div><div>1) Configure AC correctly, AP deliver SSID: “H-NAP”, the security policy is WPA2-802.1x;</div><div>2) Configure posture check service in Clearpass;</div></div> <div><div><div><div>aruba</div><div>配置</div><div>此处开始</div><div>服务</div><div>认证</div><div>方法</div><div>源</div><div>身份</div><div>安全状况</div><div>安全状况策略</div><div>审计服务器</div><div>强制执行</div><div>网络</div><div>设备</div><div>设备组</div><div>代理目标</div><div>Event Sources</div><div>策略仿真</div><div>Profile 设置</div></div><div><div>ClearPass Policy Manager</div><div>配置 » 服务 » 编辑 - TestingHuawei 802.1X Wireless Posture Checks</div><div>服务 - TestingHuawei 802.1X Wireless Posture Checks</div><div>Note: This Service is created by Service Template</div><div><div>概要</div><div>服务</div><div>角色</div><div>安全状况</div><div>强制执行</div></div><div>服务:</div><div><div>名称:</div><div>TestingHuawei 802.1X Wireless Posture Checks</div></div><div><div>说明:</div><div>To authenticate users to any wireless network via 802.1X.</div></div><div><div>类型:</div><div>Web-based Health Check Only</div></div><div><div>状态:</div><div>Enabled</div></div><div><div>监视模式:</div><div>Disabled</div></div><div><div>更多选项:</div><div>安全状况遵从</div></div><div>服务规则</div><div>匹配以下所有条件:</div><div><table><tr><th>类型</th><th>名称</th><th>运算符</th></tr><tr><td>1. Host</td><td>CheckType</td><td>MATCHES_ALL</td></tr><tr><td>2. Host</td><td>InterfaceType</td><td>EQUALS</td></tr></table></div><div>角色:</div><div>角色映射策略: -</div><div>安全状况:</div><div>安全状况策略: -</div><div>返回服务</div></div></div><div><div><div>aruba</div><div>配置</div><div>此处开始</div><div>服务</div><div>认证</div><div>方法</div><div>源</div><div>身份</div><div>安全状况</div><div>安全状况策略</div><div>审计服务器</div><div>强制执行</div><div>网络</div><div>设备</div><div>设备组</div><div>代理目标</div><div>Event Sources</div><div>策略仿真</div><div>Profile 设置</div></div><div><div>ClearPass Policy Manager</div><div>配置 » 服务 » 编辑 - TestingHuawei 802.1X Wireless Posture Checks</div><div>服务 - TestingHuawei 802.1X Wireless Posture Checks</div><div>Note: This Service is created by Service Template</div><div><div>概要</div><div>服务</div><div>角色</div><div>安全状况</div><div>强制执行</div></div><div>名称:</div><div>TestingHuawei 802.1X Wireless Posture Checks</div><div>说明:</div><div>To authenticate users to any wireless network via 802.1X.</div><div>类型:</div><div>Web-based Health Check Only</div><div>状态:</div><div>Enabled</div><div>监视模式:</div><div><input type="checkbox"/> 启用以监视无强制执行的网络访问</div><div>更多选项:</div><div><input type="checkbox"/> 授权 <input checked="" type="checkbox"/> 安全状况遵从</div><div>服务规则</div><div><div><input type="radio"/> 任意或 <input checked="" type="radio"/> 以下所有条件:</div><div><table><tr><th>类型</th><th>名称</th><th>运算符</th></tr><tr><td>1. Host</td><td>CheckType</td><td>MATCHES_ALL</td></tr><tr><td>2. Host</td><td>InterfaceType</td><td>EQUALS</td></tr><tr><td>3. Click to add...</td><td></td><td></td></tr></table></div></div><div>返回服务</div></div></div></div>	类型	名称	运算符	1. Host	CheckType	MATCHES_ALL	2. Host	InterfaceType	EQUALS	类型	名称	运算符	1. Host	CheckType	MATCHES_ALL	2. Host	InterfaceType	EQUALS	3. Click to add...		
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The image displays three sequential screenshots of the Aruba ClearPass Policy Manager web interface, illustrating the configuration of wireless posture checks for TestingHuawei 802.1X Wireless Windows Posture Checks.

**Screenshot 1 (Top):** Shows the 'Configuration' (配置) menu on the left sidebar. The main pane displays the 'Service' (服务) configuration for 'TestingHuawei 802.1X Wireless Posture Checks'. The 'Security Status' (安全状况) tab is active, showing the 'Security Status Policy' (安全状况策略) section. The policy is named 'TestingHuawei 802.1X Wireless Windows Posture Checks'. The 'Default Security Status' (默认安全状况令牌) is set to 'QUARANTINE (20)'. The 'Remediation' (修补) section shows 'Remediation URL' (修补 URL) and 'Remediation Endpoint' (修补终端) fields.

**Screenshot 2 (Middle):** Shows the 'Enforcement Policy Details' (强制执行策略详细信息) section. The 'Enforcement Policy' (强制执行策略) is 'TestingHuawei 802.1X Wireless OnGuard Agent'. The 'Enforcement Policy Configuration File' (强制执行策略配置文件) is '[Aruba Terminate Session]'. The 'Enforcement Policy Evaluation Method' (强制执行策略评估算法) is 'first-applicable'. Below this, a table lists the 'Enforcement Policy Conditions' (强制执行策略条件) and 'Enforcement Policy Configuration Files' (强制执行策略配置文件).

条件	强制执行策略配置文件
1. (Tips: Posture NOT_EQUALS HEALTHY (0))	TestingHuawei 802.1X Wireless [Aruba Terminate Session]
2. (Tips: Posture EQUALS HEALTHY (0))	TestingHuawei 802.1X Wireless [Aruba Terminate Session]

**Screenshot 3 (Bottom):** Shows the 'Security Status Policy' (安全状况策略) configuration. The 'Policy Name' (策略名称) is 'TestingHuawei 802.1X Wireless Windows Posture Checks'. The 'Policy Description' (策略说明) is 'Web Agent'. The 'Host Operating System' (主机操作系统) is 'WINDOWS'. The 'Restrict by Roles' (按角色限制) section is empty. Below this, the 'Security Status Policy Plugins' (安全状况策略插件) section shows a list of selected plugins: 'ClearPass Windows Universal System Health Validator'. The 'Policy Evaluation Method' (策略评估算法) is 'First applicable'. The 'Policy Conditions' (策略条件) section lists two conditions: '通过所有 SHV 检查 - ClearPass Windows Universal System Health Validator' and '未通过一个或多个 SHV 检查 - ClearPass Windows Universal System Health Validator'.

3) Configure postrue check policy to mark the testing laptop status is health. Enable posture check in laptop, expected result 1,2;

	4) Configure posture check policy to mark the testing laptop status is unhealth. Enable posture check in laptop, expected result 3,4;		
<b>Expected Result</b>	1) The posture check result in client is health. 2) Laptop get the ip address of 10.138.0.0/16(VLAN 2106); 3) The posture check result in client is unhealth. 4) Laptop get the ip address of 10.128.0.0/16(VLAN 2102);		
<b>Remark</b>			
<b>Signature by Customer</b>		<b>Signature by Vendor</b>	